

CLAIMS

What is claimed is:

1. An unsymmetrical thread profile used to connect stator housings of a positive displacement motor, comprising:
 - one or more load bearing flanks angled with respect to the longitudinal axis of the thread profile at a first angle;
 - one or more non-load bearing flanks angled with respect to the longitudinal axis of the thread profile at a second angle; and
 - a root radius between the non-load bearing flanks and the load bearing flanks;wherein the second angle is less than the first angle such that the root radius is greater than the root radius of a symmetrical thread profile having substantially the same pitch and first angle.
2. The unsymmetrical thread profile of claim 1, wherein the thread profile is a pin-side profile.
3. The unsymmetrical thread profile of claim 1, wherein the thread profile is a box-side profile.
5. A method of providing a larger root radius for a thread profile, comprising:
 - providing a load bearing flank having a first angle; and
 - providing a non-load bearing flank having a second angle less than the first angle.
6. A method of reducing the fatigue experienced by a threaded connection, comprising:
 - reducing the angle of the non-load bearing flank to increase the root radius.